

## EDUCATION

- 2014- **PhD in Geophysics, Stanford University**  
Advised by Dr. Tiziana Vanorio, Stanford Rock Physics Laboratory  
GPA: 4.00
- 2017 **Masters in Geophysics, Stanford University**
- 2010-2014 **BA in Geology and Physics, Pomona College**  
GPA: 3.86 - *Cum Laude*

## EXPERIENCE

- 2014- Graduate Research Assistant, *Stanford University*
- Inducing decarbonation in the lab using the high-temperature-high-pressure reactor vessel
  - Measuring bulk transport, acoustic property, and microstructural changes
  - Utilizing 3D printing as a novel microstructural change measurement technique
- 2013, 2011 Summer Undergraduate Research Program Intern, *Pomona College*
- 2013: Calculated depth of emplacement for the Fine Gold Intrusive Suite of the Sierra Nevada Batholith using Ion Microprobe and Scanning Electron Microscope
  - 2011: Investigated changes in stress state from a bend in a fault using Poly3D
- 2012 IRIS Intern, *The Australian National University*
- Analyzed passive source seismic data from earthquakes in Australia, Compared velocity structure map from local data to other maps from teleseismic data
- 2011-2014 Math Mentor and Tutor and Physics Teaching Assistant, *Pomona College*

## HONORS AND AWARDS

- 2015 Stanford Graduate Fellowship, Stanford University
- 2015 Stanford Geophysics Department Citizenship Award, Stanford University
- 2014 Richard P Edmunds Physics Prize, Pomona College
- 2014 Member of Phi Beta Kappa, Pomona College
- 2013 Sigma Xi Grant-in-Aid of Research, Pomona College
- 2013, 2011 Tileston Physics Prize, Pomona College

## PUBLICATIONS

- 2016 Head, D., and T. Vanorio (2016), Effects of changes in rock microstructures on permeability: 3-D printing investigation, *Geophysical Research Letters*, 43, doi: 10.1002/2016GL069334.

## CONFERENCE PRESENTATIONS

- 2016 Poster: *3-D Printing as a Tool to Investigate the Effects of Changes in Rock Microstructures on Permeability*, AGU
- 2016 *3D Printed Rock Microstructures: Experimental and Simulated Permeability*, GSA on behalf of Tiziana Vanorio
- 2015 Poster: *3D Printing Carbonate Microstructures: Preliminary Porosity-Permeability Trends with Applications to the Decarbonation Reaction*, EURO-conference on Rock Physics and Geomechanics and AGU